



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,050	03/06/2000	VICTOR CHRISTOU	SHP-PT050	9402

3624 7590 11/18/2003

VOLPE AND KOENIG, P.C.
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

WELLS, LAUREN Q

ART UNIT	PAPER NUMBER
----------	--------------

1617

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/445,050

Applicant(s)

CHRISTOU, VICTOR

Examiner

Lauren Q Wells

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-57 is/are pending in the application.
- 4a) Of the above claim(s) 49,50 and 52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47,48,51 and 53-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 1617

DETAILED ACTION

Claims 47-57 are pending. Claims 49-50 and 52 are withdrawn from consideration, as they are directed to non-elected subject matter. The Amendment filed 11/20/02, Paper No. 18, cancelled claims 24-26, 28-30 and 32-44, and added claims 47-53. The Amendment filed 11/5/03, Paper No. 19, added claims 54-57. The Amendment filed 11/6/03, Paper No. 20, amended claims 47 and 54-57.

No arguments toward the Office Action mailed 2/8/02, Paper No. 14, were provided against these new claims.

Applicant's arguments to the Unity of Invention in the Amendment filed 5/13/02, Paper No. 15, are moot, as they are directed toward claims that have been cancelled. The instant pending claims, for reasons of record, do not contain a special technical feature.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 47-48, 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Seminara et al. (Inorg. Chim. Acta).

Seminara et al. teach the absorption and emission spectra of neodymium(III) and europium(III) complexes. Disclosed is a Ln(HBpz3)₃ complex, wherein Ln is a lanthanide metal of Nd, Eu, or Ho, and HBpz3 is hydrotris(pyrazol-1-yl)borate ion. In particular, the claim

Art Unit: 1617

limitations are fulfilled when Z is HB, L is pz (formula (II), wherein , R2-R4 are H), M is a lanthanide metal ion, q is zero and p is three. See entire disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 53-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seminara et al. as applied to claims 47-48 and 51 above, and further in view of Lawrence et al. (J. Chem. Soc. Dalton Trans).

The instant invention is directed to organometallic complexes of formula (I), as recited in instant claim 47.

Seminara et al. is applied as discussed above. The reference fails to exemplify both Tb as the lanthanide metal and CF₃SO₃ as a counterion. However, in the introduction, the reference teaches Tb as a lanthanide metal producing a strong fluorescence for use in their invention, and also teaches CF₃SO₃ as a counterion used in combination with lanthanide metal complexes. The reference further lacks R2 and R4 as CH₃.

Lawrence et al. teach new complexes of [Ln{HB(pz)₃}₂L], wherein pz is pyrazol-1-yl, Ln is Tb and L is salicylaldehyde. See entire disclosure.

Newman teaches hydridotris(pyrazolyl)borate metal complexes, wherein the pyrazolyl can be substituted at the 3 and 5 position with alkyl groups, such as methyl groups. See abstract; Col. 2, line 27-45.

Art Unit: 1617

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the Tb of Lawrence for the Nd, Eu or Ho of Seminara because a) both references teach trispyrazoyl ligands covalently bound to boron hydride in conjunction with lanthanide metals; b) Tb, Nd, Eu and Ho are all lanthanide metals with a 3+ charge and Seminara teaches Tb as a metal that produces a strong fluorescence; c) Lawrence et al. teach Tb, Nd, Eu and Ho as interchangeable lanthanide metals in conjunction with trispyrazoyl ligands covalently bound to boron hydride; thus, the replacement of one for the other in an organometallic complex would be within the skill of one in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Lawrence to exemplify the organometallic complex of Seminara as further comprising a counterion of CF₃SO₃ because a) both references teach trispyrazoyl ligands covalently bound to boron hydride in conjunction with lanthanide metals; b) both references teach that counter ions can be in conjunction with organometallic complexes; c) Lawrence teaches that counter ions can be in conjunction with trispyrazoyl ligands covalently bound to boron hydride in conjunction with lanthanide metals, and Seminara teaches CF₃SO₃ as a counterion; hence, modifying the organometallic complex of Seminara by adding a counterion would be within the skill of one in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a methyl, as taught by Newman, for the hydrogen on the 3 and 5 positions of the pyrazolyl ring of Seminara et al., because Newman teaches that hydrogen and methyl are equivalent for substitution on pyrazolyl rings in organometallic complexes, and because it is well established that the substitution of methyl for hydrogen on a known compound is not a

Art Unit: 1617

patentable modification absent unexpected or unobvious results. In re Wood, 582 F.2d 638, 199 USPQ 137 (CCPA 1978); In re Hoke, 560 F.2d 436, 195 USPQ 148.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

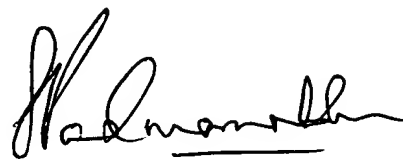
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on M-F (7-4:30), with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (703)305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1617

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw



**GREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER**

11/17/03